USER GUIDE

NanoTemp125-CF-2.1

MadgeTech

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NanoTemp125-CF

Thermal Processing Data Logger

Product User Guide

To view the full MadgeTech product line, visit our website at madgetech.com.

Product Overview

The NanoTemp125-CF delivers the precision of MadgeTech's high-temperature data logging technology in an ultra-compact design, ideal for tight spaces and small-scale canning processes. Built from durable stainless steel and fully submersible, this miniature data logger is engineered for use in harsh environments and excels in heat penetration testing during retort and pasteurization.

This model features a threaded end for secure compatibility with both the CF202 Canning Fitting and the ThermaLock-Pro Canning Fitting, making it a versatile solution for food processing applications. The NanoTemp125-CF can measure temperatures up to +125 °C (+257 °F) with an accuracy of up to ±0.1 °C (±0.18 °F).

With a storage capacity of 32,512 readings and non-volatile solid state memory, it retains data even if the battery is depleted. The NanoTemp125-CF is designed for continuous monitoring in both wet and dry environments up to its max temperature rating.

Water Resistance

The NanoTemp125-CF is fully submersible and is rated IP68. It can be placed in environments with up to 230 feet (70 m) of water.

Installation Guide

Installing the Software

The Software can be downloaded from the MadgeTech website at madgetech.com. Follow the instructions provided in the Installation Wizard.

IFC400 with Adapter

Installing the Docking Station

IFC400 or IFC406, with adapter (sold separately) — Follow the instructions provided in the Installation Wizard to install the USB Interface Drivers. Drivers can also be downloaded from the MadgeTech website at madgetech.com.

IFC406

Device Operation

Connecting and Starting the Data Logger

1. Once the software is installed and running, plug the interface cable into the docking station.
2. Connect the USB end of the interface cable into an open USB port on the computer.
3. Place the data logger into the docking station.
4. The data logger will automatically appear under **Connected Devices** within the software.
5. For most applications, select **Custom Start** from the menu bar and choose the desired start method, reading rate and other parameters appropriate for the data logging application and click **Start**. (***Quick Start*** *applies the most recent custom start options,* ***Batch Start*** *is used for managing multiple loggers at once,* ***Real Time Start*** *stores the dataset as it records while connected to the logger.*)
6. The status of the device will change to **Running** or **Waiting to Start**, depending upon your start method.
7. Disconnect the data logger from the interface cable and place it in the environment to measure.

Note: The device will stop recording data when the end of memory is reached or the device is stopped, unless user selectable memory wrap is enabled. At this point the device cannot be restarted until it has been re-armed by the computer.

Downloading Data from a Data Logger

1. Place the logger into the docking station.
2. Highlight the data logger in the **Connected Devices** list. Click **Stop** on the menu bar.
3. Once the data logger is stopped, with the logger highlighted, click **Download**.
4. Downloading will offload and save all the recorded data to the PC.

Set Password

To password protect the device so that others cannot start, stop or reset the device:

1. In the **Connected Devices** panel, click the device desired.
2. On the **Device** Tab, in the **Information** Group, click **Properties**. Or, right-click the device and select **Properties** in the context menu.
3. On the **General** Tab, click **Set Password**.
4. Enter and confirm the password in the box that appears, then select **OK**.

Note: This product is rated for use up to 125 °C (257 °F). Please heed the battery warning. The product will explode if exposed to temperatures above 125 °C (257 °F).

Device Maintenance

Battery Replacement

Materials: BAT-BR1225A-00

Follow these steps to safely and effectively replace the batteries in your NanoTemp125-CF. Ensure you have the appropriate replacement batteries on hand before beginning.

1

Secure the Wrench:

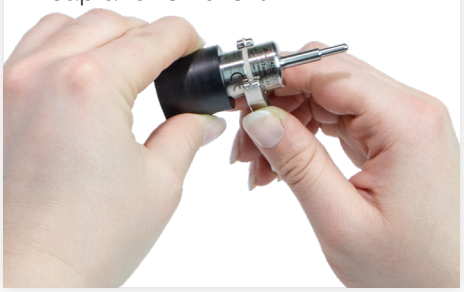
Align the wrench with the grooves on the isolator segment of the NanoTemp125-CF. Firmly secure the wrench until you feel it click into place.

2

Rotate & Remove End Cap:

Using the bottom of the IFC Adapter for stability, rotate the end cap of the NanoTemp125-CF until you feel it click into place.

Turn the IFC adapter counter-clockwise to unscrew the end cap and remove it.



3

Remove the Old Batteries:

Carefully lift the battery board to access and remove the old batteries

4

Insert the New Batteries:

Place the new batteries into the compartment, noting the polarity of the battery. Failure to insert the battery accurately could result in product inoperability or potential explosion if exposed to high temperatures.

5

Reassemble the Logger:

Replace the battery board carefully, ensuring it is properly seated. Then, reattach and tighten the endcap by rotating it clockwise until secure.

6

Once the replacement is complete, verify the NanoTemp125-CF's functionality by connecting it to the IFC docking station.

Note: This product is rated for use up to 125 °C (257 °F). Please heed the battery warning. The product will explode if exposed to temperatures above 125 °C (257 °F).

Recalibration

MadgeTech recommends annual recalibration. To send devices back for calibration, visit madgetech.com.

Need Help?

Product Support & Troubleshooting

- Visit our Resource Library online at madgetech.com/resources.
- Contact our friendly Customer Support Team at (603) 456-2011 or support@madgetech.com.

MadgeTech 4 Software Support

- Refer to the built-in help section of the MadgeTech 4 Software.
- Download the MadgeTech 4 Software Manual at madgetech.com.
- Contact our friendly Customer Support Team at (603) 456-2011 or support@madgetech.com.

Ordering Information

NanoTemp125-CF-1.1	902462-00	NanoTemp125-CF with 1.1” probe
NanoTemp125-CF-1.8	902668-00	NanoTemp125-CF with 1.8” probe
NanoTemp125-CF-2.1	902669-00	NanoTemp125-CF with 2.1” probe
NanoTemp125-CF-3.1	902671-00	NanoTemp125-CF with 3.1” probe
NanoTemp125-CF-3.9	902672-00	NanoTemp125-CF with 3.9” probe
NanoTemp125-CF-5.4	902673-00	NanoTemp125-CF with 5.4” probe
ThermaLock-1.1	902122-00	1.1” Thermowell for Canning Data Loggers
ThermaLock-1.2	902102-00	1.2” Thermowell for Canning Data Loggers
ThermaLock-1.3	902123-00	1.3” Thermowell for Canning Data Loggers
ThermaLock-1.4	902103-00	1.4” Thermowell for Canning Data Loggers
ThermaLock-1.5	902124-00	1.5” Thermowell for Canning Data Loggers
ThermaLock-1.6	902104-00	1.6” Thermowell for Canning Data Loggers
ThermaLock-1.8	902125-00	1.8” Thermowell for Canning Data Loggers
ThermaLock-2.1	902435-00	2.1” Thermowell for Canning Data Loggers
ThermaLock-2.2	902127-00	2.2” Thermowell for Canning Data Loggers
ThermaLock-3.1	902128-00	3.1” Thermowell for Canning Data Loggers
ThermaLock-3.9	902119-00	3.9” Thermowell for Canning Data Loggers
ThermaLock-5.4	902446-00	5.4” Thermowell for Canning Data Loggers
IFC400	900319-00	Docking station with USB cable
IFC406	900325-00	6 Port, Multiplexer docking station with USB cable
NanoTemp125 Communication Kit	902677-00	Includes IFC Adapter and Wrench
BAT-BR1225A-00	902678-00	Replacement Battery for the NanoTemp125 (2-Pack)

For Quantity Discounts call (603) 456-2011 or email **sales@madgetech.com**.

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